

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendraye	Chair
Ellen Gavin	Commissioner
Marshall Johnson	Commissioner
Phyllis Reha	Commissioner
Gregory Scott	Commissioner

In the Matter of ALL ELECTRIC  
COMPANIES Establishing Generic  
Standards for Utility Tariffs for  
Interconnection and Operation of  
Distributed Generation Facilities  
Under MN Law 2001, Chapter 212

MPUC Docket No. E999/CI-01-1023

**XCEL ENERGY'S REPLY  
COMMENTS**

**INTRODUCTION**

Northern States Power Company d/b/a Xcel Energy (“Xcel Energy” or the “Company”) respectfully submits this reply to the comments of other parties to this proceeding on the May 22, 2003 Technical Standards Workgroup Phase II Report. Additionally, Xcel Energy endorses the Rate Workgroup comments of the Regulated Electric Utilities who are separately filing comments on the ratemaking and tariff issues associated with distributed generation. This reply is provided pursuant to the Minnesota Public Utilities Commission (“Commission”) March 31, 2003 Notice of Revised Comment Schedule.

**DISCUSSION**

Xcel Energy appreciates the efforts made by all participants to this process. The Minnesota Department of Commerce (“Department”) has provided strong leadership to this initiative and has helped bring together a divergent set of interests in

a productive forum. We also want to thank both the Distributed Generation Coalition and Dakota Electric Association, both of whom have played key roles in assisting the Department in advancing this initiative.

While some disagreement is inevitable when working with multiple interest groups, Xcel Energy has been pleased by the constructive nature of the debate and the level to which issues have been resolved. We provide our brief reply below to some of the issues discussed by other parties.

**A. Tariff and Ratemaking Issues.**

Xcel Energy agrees with the Rate Workgroup comments submitted by the Regulated Electric Utilities. As a member of that workgroup, we are prepared to answer any questions that may arise on these issues and to work with the group on refinements identified by the Commission.

**B. Reply to DG Coalition.**

The Distributed Generation (“DG”) Coalition submitted constructive comments on the Department’s Report and stated their position on the four unresolved issues identified by the Department. While the DG Coalition raised several legitimate issues that are worthy of discussion, we respectfully disagree that the Department’s Report will result in barriers to interconnection of DG projects.

As a general matter, we note that the DG Coalition’s comments do not adequately distinguish between larger and smaller DG projects. The complexity of the interconnection issues increase with the size of the project. Thus while some of the DG Coalition’s concerns about study timing may be appropriate when considering the very smallest DG projects, safety and reliability considerations require individual study of moderate to larger projects and may even be necessary with certain smaller projects depending on their location. Xcel Energy does not believe the Commission wants to, or should, adopt DG processes that could place the reliability of electric

service to non-participant customers, or the safety of utility workers and the public, at risk. As discussed in our June 6, 2003 comments we believe it is important that the size of a DG project be taken into account by the process and that costs incurred to allow the safe additional of DG to the system be the responsibility of the DG owner

1. Engineering Studies

- a. Timing

The DG Coalition urges the Commission to impose a schedule with fixed dates, deadlines and costs, regardless of conditions on the system where the individual DG project proposes to interconnect. Xcel Energy is concerned that this approach should not be adopted because flexibility is necessary to account for both project size and system circumstances. While very small DG projects probably can be studied and implemented quickly and without extensive analysis, larger projects will create more complex issues. Time necessary to examine individual DG interconnection and operation impacts is likely to decrease as more experience is gained and more equipment becomes pre-certified. The need is to identify a streamlined, more standardized interconnection request process; one that recognizes, for example, that a DG unit of 100 KW or less has a much different impact on the distribution system than a DG unit of 1-2 MW which has a much different impact than a DG unit of 10 MW. One size does not fit all however, safety and reliability concerns over the proper implementation of the system cannot be disregarded.

- b. Cost

The DG Coalition continues to urge fixed charges and waiver of charges in certain circumstances, regardless of the actual cost of those studies. We believe that the more appropriate outcome is for the DG project to pay for the actual cost of the studies as any under-recovery will ultimately result in cross subsidies by the utility's ratepayers. While these costs will likely be very low in most instances, we believe the

project should bear responsibility to pay in those circumstances where the electrical location of the individual DG project on the utility's system requires further study.

For example, we do not agree that DG projects should be entitled to free status screening (p. 5) for their projects. Rather, individual circumstances should be addressed and the actual cost of studies should be paid by the person who causes the cost to be incurred. The DG Coalition further suggests that if the DG project will only use a modest amount of the feeder capacity for export, the project should be exempt from engineering costs.

As another example, the DG Coalition proposes a “<15% of feeder capacity for export level” for free status. This proposal is insufficient as it sets a fixed rule where individual circumstances may dictate significant study. Even if the DG unit would use less than 15% of the feeder capacity, it can be a large portion of the branch circuit to which it is attached. This situation requires examination to insure that the reliability of service to other customers on the feeder and branch circuit will not be negatively affected. Other DG facilities already connected may have already utilized the margins that this rule depends upon. This also requires study. The limits listed in Section D for expedited processing of the Process Document recognize these limitations and are more appropriate.

Furthermore, the DG Coalition’s proposed “< 25% short circuit current contribution limit” for free status is likewise too high and fails to account for individual circumstances. The Department’s approach in the Report is more appropriate. The Report lays out a 10% limit for simplified processing which is a better approach. (D.4 of Process Document.) The Report’s approach also allows for the possibility that individual circumstances may vary even in projects that have a small individual impact on the system. For optimized equipment utilization, frequently, utilities design and operate their distribution system with acceptable, but narrow margins. A 10% contribution of short circuit current is unlikely to take the

total short circuit current over the design ratings of the distribution equipment. A 25% contribution will require a review of affected equipment and the results may dictate equipment upgrades. Because of this, the individual situation must be studied.

We also respectfully disagree with the DG Coalition's suggestion (p. 5) that connecting with "network secondaries" should be allowed without cost or study. Operation of a unit connected to a secondary network<sup>1</sup> on the deliver system is much more complicated with greater potential for customer impact. Although secondary networks are not a good setting for DG units, their placement is possible but the complexity, special equipment and greater potential to disturb neighboring customers will involve more study time and consequently, require additional fees. Safety and reliability concerns related to DG interconnection with network secondaries should not be ignored. Moreover, no DG system is so small or simple that no study is appropriate. In many situations, the addition of generation is not compatible with protection characteristics of the network protection systems in the area. For this reason, a study of individual circumstances cannot be ignored. Costs are incurred for these appropriate studies and are rightly the responsibility of the DG owner.

As is stated throughout the Rate Workgroup comments of the Regulated Electric Utilities, any costs incurred as a result of a DG interconnection that are not paid for by the DG owner, must be paid by other customers. The chief purpose in establishing technical criteria for the installation of DG is to ensure safe, reliable operation of the distribution system to provide electric service to utility customers. Customers may *choose* to install DG equipment to address their own electric needs or to sell power to the utility. However, a key provision to permitting this would be no adverse impact to customers electing *not* to install such generation.

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<sup>1</sup> Downtown Minneapolis or downtown St. Paul would be examples of secondary networks on the Xcel Energy system.

2. Insurance Requirements.

Our June 6, 2003 comments states Xcel Energy's position on the need for and proposed levels of insurance. Because of the nature of electrical generation, we believe requiring the DG entity to have adequate insurance is important. While some projects may be small, engaging in the business of generating electricity creates the potential for insurable hazards that should be accounted for by the generator, particularly since the DG can, under some circumstances, create damage or personal injuries that reach beyond the insured property and into the electrical system. While Xcel Energy is sympathetic to the added expense that insurance will place on a DG project, we believe this should be viewed as a cost of doing business.

3. Interconnection Agreement

a. Construction Issues

The DG Coalition indicates a desire for fixed construction costs; this is not possible, particularly for large installations as it would be impossible to accurately impose costs across the board. Many variables can be encountered in developing and constructing a DG project. As described in our June 6 comments, we believe it is most appropriate for the party requesting interconnection to the system, the DG project, to bear the responsibility for any unforeseen costs those changes require. This will ensure that other ratepayers are not called upon to subsidize the project, leading to more accurate cost estimates as under recovery of costs will no longer be an issue. While this issue may not be as important with smaller projects, we believe charging actual costs is fair and equitable. Obviously, if an individual DG project feels it has not been treated fairly, it can seek relief at the Commission.

b. Operational Issues.

In the last sentence of page 8 of their comments, the DG Coalition proposes a level of advance notice to the DG beyond what is appropriate or practical for small

DG installations. Contracts with large installations typically have some provision that provide for advanced notification for non-emergency situations. We agree with the DG Coalition that there should be no unreasonable interference with the operation of the generation system of a DG owner. However, occasional maintenance of the distribution system is certainly not unreasonable. We believe this issue is adequately addressed by paragraph VIII.F of the Interconnection Agreement, and the DG Coalition's proposal would be unduly burdensome.

#### 4. Other Issues.

On page 11, the DG Coalition suggests that the 15 day requirement for responding to interconnection requests never be reset to zero, just paused for certain delays. This position could create difficulties for the utility. In Step 2 of the process, the utility must notify the Generation System that the Application information is incomplete within 10 days. If the clock only stops but does not reset, the next response time is down to five days assuming complete information is provided the second time. And if information is still incomplete, there could be zero time to respond after a third attempt to provide complete information. Obviously, the utility needs to have adequate time (15 days) to respond to requests after complete information has been provided.

Finally, the DG Coalition's suggestion of basing a generic power purchase agreement on a net metering agreement is not appropriate for all projects. The net metered installation and the larger contract power sales situation are truly comparing two uniquely different categories of DG interconnection. The power purchase agreements should reflect the unit size and the nature of the operational constraints for that class of unit.

## **CONCLUSION**

Xcel Energy again appreciates the opportunity to provide feedback on this process. The comments by other parties have been constructive and have provided the Commission with a broad range of perspectives on this topic. We look forward to continuing to work with the Department, the DG Coalition and all of the stakeholders as the Commission considers how best to proceed with this important initiative.

Dated: June 27, 2003